



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/534,818

05/13/2005

Yusuke Tatara

052552

7064

38834 7590 12/20/2006
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP
1250 CONNECTICUT AVENUE, NW
SUITE 700
WASHINGTON, DC 20036

EXAMINER

LE, DAVID D

ART UNIT

PAPER NUMBER

3681

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

12/20/2006

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/534,818	TATARA ET AL.	
	Examiner	Art Unit	
	David D. Le	3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/13/05, 07/13/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is the first Office action on the merits of Application No. 10/534,818, filed 13 May 2005. Claims 1-11 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:
 - A copy of the Certified Copy of Foreign Priority Document, received on 05/13/05
 - Information Disclosure Statement, received on 05/13/05
 - Information Disclosure Statement, received on 07/13/05

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 1:

- Line 10 recites the limitation "the engagement degree". There is insufficient antecedent basis for this limitation in the claim.
- Line 19 recites the limitation "the revolution rate". There is insufficient antecedent basis for this limitation in the claim.

Claim 7:

- Line 10 recites the limitation "the engagement degree". There is insufficient antecedent basis for this limitation in the claim.
- Line 18 recites the limitation "the revolution rate". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 7-11 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent No. 6,342,027 to Suzuki.**

Claims 7-11:

Suzuki (Figs. 1-4; column 1, line 52 – column 11, line 53) discloses a hybrid motive power vehicle comprising:

- An engine (i.e., Fig. 1, element 2);
- A motor (i.e., Fig. 1, element 1);
- An output shaft (i.e., Fig. 1, element 11);

- A clutch device (i.e., Fig. 1, element 5) provided between the engine and motor and the output shaft and adapted to selectively disconnect the driving powers of the engine and motor from the output shaft;
- A clutch control device (i.e., Fig. 1, element 18) operatively connected to the clutch device for controlling the engagement degree of the clutch device when the driving mode of the vehicle is alternately switched between the engine cruise mode and the motor cruise mode (i.e., Figs. 3 and 4; column 6, line 13 – column 9 line 64);
- Wherein the clutch control device is adapted to execute a clutch relaxation control operation when the driving mode of the vehicle is switched between the engine cruise mode and the motor cruise mode, which includes an engagement decreasing control operation in which the engagement degree of the clutch device is decreased, and a subsequent engagement recovery control operation in which the engagement degree of the clutch device is gradually increased and recovered, and is further adapted to control the engagement degree of the clutch device depending on the revolution rate of the engine (i.e., Figs. 3 and 4; column 6, line 13 – column 9 line 64);
- Wherein the control operation for the engagement degree of the clutch device, which is executed depending on the revolution rate of the engine, is executed within a predetermined period that begins at the beginning of the clutch relaxation control operation, and the engagement recovery control operation is executed

after the predetermined period has passed (i.e., Figs. 3 and 4; column 6, line 13 – column 9 line 64);

- Wherein, since the clutch device is a hydraulic type wet clutch, the engagement degree of the clutch device is inherently changed in accordance with a clutch oil pressure correction coefficient which is determined in advance depending on revolution rate of the engine (i.e., column 5, lines 35-39);
- Wherein the clutch oil pressure correction coefficient is inherently set higher so as to increase the engagement degree of the clutch device as the revolution rate of the engine decreases; and
- Wherein the hybrid vehicle comprises an automatic transmission (i.e., Fig. 1, element 4; column 4, lines 52-53), and the clutch device is considered as a starting clutch provided for the automatic transmission.

Allowable Subject Matter

7. Claim 1 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

8. Claims 2-6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

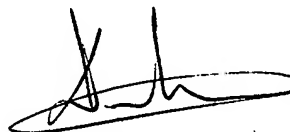
- Ando et al. (U. S. Patent No. 6,244,368) teaches a hybrid powered vehicle having a starting clutch that is capable of varying a torque transmission capacity, as shown in Fig. 1.
- Eguchi (U. S. Patent No. 6,338,694) teaches an apparatus for controlling a starting clutch of a vehicle, as shown in Fig. 1.
- Tatara et al. (U. S. Patent No. 6,988,572) teaches a hybrid vehicle comprising a starting clutch that is capable of varying the engagement degree during the driving mode switching process between the engine cruise mode and the motor cruise mode, as shown in Fig. 1.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3681

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



David D. Le
Examiner
Art Unit 3681
12/12/06

ddl